

## CLAIMS

1. A voltage converting device comprising:  
an electric load (M1, M2, G1) having an electric power generating  
5 function;  
a capacitor (C2) connected to an input of said electric load (M1, M2, G1);  
a down-converter (12) down-converting a voltage of said capacitor (C2);  
10 control means (30, 30A, 30B) controlling said electric load (M1, M2, G1) such that electric power generation in said electric load (M1, M2, G1) is prohibited or an amount of electric power generated by electric load (M1, M2, G1) is decreased, when said down-converter (12) fails.
- 15 2. The voltage converting device according to claim 1, wherein said down-converter (12) has a voltage-up-converting function.
3. The voltage converting device according to claim 1 or claim 2 wherein  
20 said electric load (M1, M2) is a motor having an electric power generating function, and  
said control means (30, 30A, 30B) restricts a regenerative electric power generating function of said motor, when said down-converter (12) fails.
- 25 4. The voltage converting device according to claim 3, wherein said control means (30, 30A, 30B) prohibits regenerative electric power generation of said motor.
- 30 5. The voltage converting device according to claim 3, further comprising another electric load (M1) different from said motor, wherein said control means (30A, 30B) restricts an amount of regenerative electric power generated by said motor to a value smaller than power

consumption in said another electric load (M1).

6. A voltage converting device comprising:

5 a first electric load (G1, M2) having an electric power generating function;

a capacitor (C2) connected to an input of said first electric load (G1, M2);

a down-converter (12) down-converting a voltage of said capacitor (C2);

10 a second electric load (M1) different from said first electric load (G1, M2); and

control means (30A, 30B) controlling said second electric load (M1) such that an amount of power consumption in said second electric load (M1) is increased, when said down-converter (12) fails.

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7. The voltage converting device according to claim 6, wherein said second electric load (M1) is a motor, and

said control means (30A, 30B) controls said motor such that it outputs positive torque.

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8. A computer readable recording medium with a program recorded thereon for causing a computer to execute failure processing in a voltage converting device,

said voltage converting device including

25 an electric load (M1, M2, G1) having an electric power generating function,

a capacitor (C2) connected to an input of said electric load (M1, M2, G1), and

30 a down-converter (12) down-converting a voltage of said capacitor (C2), wherein

said program causes the computer to execute

a first step of detecting a failure in said down-converter (12), and

a second step of controlling said electric load (M1, M2, G1) such that

electric power generation in said electric load (M1, M2, G1) is prohibited or an amount of electric power generated by said electric load (M1, M2, G1) is decreased, when said failure in said down-converter (12) is detected at said first step.

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9. The computer readable recording medium with a program recorded thereon according to claim 8, wherein

said electric load (M1, M2) is a motor having an electric power generating function, and

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in said second step, a regenerative electric power generating function of said motor is restricted.

10. The computer readable recording medium with a program recorded thereon according to claim 9, wherein

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in said second step, regenerative electric power generation of said motor is prohibited.

11. The computer readable recording medium with a program recorded thereon according to claim 9, wherein

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said voltage converting device further includes another electric load (M1) different from said electric load (M2, G1), and

in said second step of said program, an amount of regenerative electric power generated by said motor is restricted to a value smaller than power consumption in said another electric load (M1).

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12. A computer readable recording medium with a program recorded thereon for causing a computer to execute failure processing in a voltage converting device,

said voltage converting device including

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a first electric load (M2, G1) having an electric power generating function,

a capacitor (C2) connected to an input of said electric load (M2, G1),

a second electric load (M1) different from said first electric load (M2,

G1), and

a down-converter (12) down-converting a voltage of said capacitor (C2), wherein

said program causes the computer to execute

- 5 a first step of detecting a failure in said down-converter (12), and  
a second step of increasing an amount of power consumption in said second electric load (M1), when said failure in said down-converter (12) is detected at said first step.

- 10 13. The computer readable recording medium with a program recorded thereon according to claim 12, wherein

said second electric load (M1) is a motor, and

- in said second step of said program, said motor is controlled such that it outputs positive torque, when said failure in said down-converter  
15 (12) is detected at said first step.

14. A failure processing method in a voltage converting device, said voltage converting device including  
an electric load (M1, M2, G1) having an electric power generating  
20 function,

a capacitor (C2) connected to an input of said electric load (M1, M2, G1), and

a down-converter (12) down-converting a voltage of said capacitor (C2),

- 25 said failure processing method comprising:

a first step of detecting a failure in said down-converter (12); and

- a second step of controlling said electric load (M1, M2, G1) such that electric power generation in said electric load (M1, M2, G1) is prohibited or an amount of electric power generated by said electric load (M1, M2, G1) is  
30 decreased, when said failure in said down-converter (12) is detected at said first step.

15. The failure processing method according to claim 14, wherein

said electric load (M1, M2) is a motor having an electric power generating function, and

in said second step, a regenerative electric power generating function of said motor is restricted.

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16. The failure processing method according to claim 15, wherein in said second step, regenerative electric power generation of said motor is prohibited.

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17. The failure processing method according to claim 15, wherein said voltage converting device further includes another electric load (M1) different from said electric load (M2), and

in said second step of said failure processing method, an amount of regenerative electric power generated by said motor is restricted to a value smaller than power consumption in said another electric load (M1).

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18. A failure processing method in a voltage converting device, said voltage converting device including a first electric load (M2, G1) having an electric power generating function,

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a capacitor (C2) connected to an input of said electric load (M2, G1), a second electric load (M1) different from said first electric load (M2, G1), and

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a down-converter (12) down-converting a voltage of said capacitor (C2),

said failure processing method comprising:

a first step of detecting a failure in said down-converter (12); and

a second step of increasing an amount of power consumption in said second electric load (M1), when said failure in said down-converter (12) is detected at said first step.

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19. The failure processing method according to claim 18, wherein said second electric load (M1) is a motor, and

in said second step of said failure processing method, said motor is controlled such that it outputs positive torque, when said failure in said down-converter (12) is detected at said first step.